morphine and scopolamine injections in patients who exhibit no other signs of sensitivity, but these local reactions are extremely mild when compared to the reaction seen in this patient following the intracutaneous injection of 0.00003 gm. of scopolamine.

A search of the literature disclosed only two instances in which similar reactions were reported, and these reactions occurred after multiple doses of scopolamine or scopolamine and Demerol combined were administered for obstetrical analgesia. Kirschbaum[1] wrote, "The uvula may swell to five or six times its normal size and may appear markedly reddened." Steinberg[2] reported three cases of edema of the uvula, one in which there was edema of the glottis also, in a series of 400 cases in which Demerol and scopolamine were used for analgesia during labor.

Throat irrigations, scarification of the uvula and/or argyrol applications were the therapy recommended in the previous reports.[1, 2] Epinephrine injections were chosen as the therapy for this patient because an allergic reaction was suspected, and epinephrine is a time-tested agent for the relief of allergic edema.

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Extramedullary Plasmacytoma of the Bladder with Local Metastasis

A. D. GORFAIN, M.D., *Los Angeles*

SINCE Schridde[4] in 1905 reported the first case of extramedullary plasmacytoma, there have been 129 cases reported. Hellwig[1] in a succinct report brought the literature up to date as of 1943 and reported his own observation of a case of extramedullary plasmacytoma of the oral cavity. In 63 cases the tumor originated in the upper respiratory tract; in 47, in the conjunctiva; in four, in lymph nodes; and in 13 in other organs (pleura, mediastinum, spermatic cord, thyroid gland, ovary, intestines, kidney, and skin). In only two of the 129 cases was the tumor located in the genito-urinary organs—one in a kidney and the other in the spermatic cord. Hellwig's review did not include a third case, reported by Marion and Leroux[2] in 1924, in which a 44-year-old male patient with signs and symptoms of vesical tumor apparently was treated successfully with suprapubic radium implantation. No case like the following could be found in the American literature.

CASE REPORT

The patient, a man 39 years of age, complained of microscopic hematuria influencing insurance applications for the previous five years. At the time he came under the author's observation a complete urinary tract study had been done elsewhere, and the condition was ascribed to "pus pockets" in the bladder. For one month the patient had malaise. No other pertinent signs or symptoms in the present or past history could be elicited. The family history was essentially normal, except for tuberculosis in the mother and one sister. The review of systems was essentially irrelative. There had been no loss of weight.

The patient was a well developed, well nourished, white male. The general physical examination was not remarkable. Blood pressure was 118 mm. of mercury systolic and 74 mm. diastolic. Specific attention to the genito-urinary organs revealed no masses or tenderness. The prostate was normal in size, configuration and consistency. Results of routine blood examinations were normal. The urine, amber and clear, showed no albumin or sugar; the pH was 6.0. Microscopic examination showed it to contain 10 to 20 erythrocytes and 4 to 6 leukocytes per high dry field. No organisms were found in Gram-stained specimens and none grew on cultures.

Cystoscopy revealed nothing of note except that the mucosa over the base and the trigone was covered with small vesicles as in cystitis cystica. Indigo carmine was emitted from each ureteral orifice in 4 plus concentration within five minutes. Catheters were readily passed to both renal pelves and clear urine which on microscopy showed no abnormal elements, was obtained. A kidney-ureter-bladder x-ray film showed soft tissue and skeletal structures to be normal. Ureteropyelograms delineated normal upper tracts. A diagnosis of cystitis cystica was made and sulfadiazine prescribed.

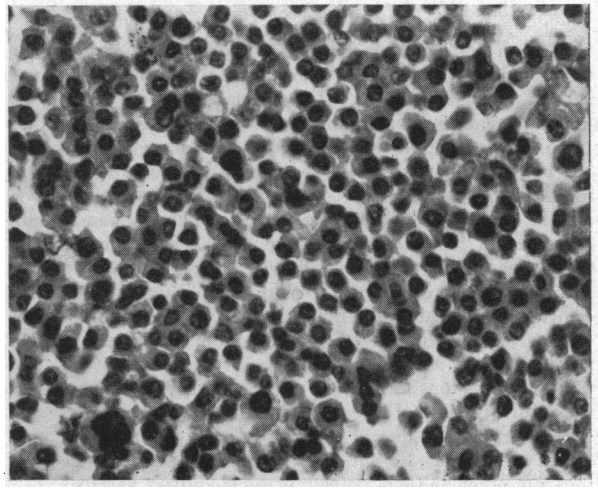
The patient was not seen again until six months later, with gross hematuria of three days' duration. Cystoscopy at this time revealed a smooth red tumor, 3 cm. in diameter, nonpedunculated, on the left anterior vault. He was hospitalized, and a segmental resection of the bladder was done. The tumor and a 1 cm. cuff of normal bladder were removed with high frequency cutting current. Healing and convalescence were uneventful, and the patient was discharged on the fifth day.

The pathologist's report was: "A hemorrhagic appearing, grayish mass measuring 3x4x2 cm. Sectioning revealed a somewhat lobulated structure with the tissue being quite homogeneous, gray-white, and soft in consistency. Microscopic examination of the section revealed large sheets of cells with comparatively small amounts of stroma. The cells were rounded to polygonal with fairly prominent cytoplasma. Many of these cells tended to present eccentric cartwheel nuclei suggesting plasma cells."

The exact diagnosis was not established and a specimen was sent to the Army Institute of Pathology, which reported:

"The extraordinary lesion appears to be a plasma cell tumor (extramedullary myeloma, plasmacytoma). The location is most unusual, and the patient should have a skeletal survey, urinary studies for Bence-Jones protein, fractionated serum proteins, bone marrow aspiration, and search for other sites in general. The tumor will be entered in the Registry, in which collection it is most certainly unique."

All the studies suggested were done and in no instance were deviations from the normal observed. The patient was seen at monthly intervals in the office, and urinalyses showed no more erythrocytes or leukocytes. Five months after the



Photomicrograph (high power) of the vesical plasmacytoma showing the uniform cell structure, eccentric nuclei and cart-wheel nuclei. (A.I.P. Neg. No. 101162).

operation, an indurated area appeared at the lower angle of the scar, not definitely fixed to the symphysis. An x-ray film showed the pelvic bones to be normal. Cystoscopy showed a well healed scar, at the anterior end of which was a smooth tumor 2 mm. in diameter, covered with normal mucous membrane. The patient left on vacation for one month, and on his return a 6 cm. mass was present immediately under the skin in the suprapubic area surrounded by extensive induration, which extended to the base of the penis without discoloration.

The patient was rehospitalized and a midline suprapubic incision was made over the symphysis for a distance of 6 cm. Part of the old scar was removed. Immediately vascular tumor tissue was encountered adherent to the subcutaneous tissue. This was pale in color, not unlike normal subcutaneous fat, but much harder. A portion of this and several nodules at the base of the penis were removed for biopsy. The wound was closed and the patient was discharged on the third day, to return for x-ray therapy.

Section examination revealed essentially the same type of cell as was seen in the previous bladder tumor. There appeared to be more of a tendency to infiltrative type of growth, there being a considerable amount of connective tissue with the cells, which were found in varying sized groups.

A week after the operation a course of deep x-ray therapy was started and daily treatments were given for the next 20 days, during which time the patient received 5,200 r through two anterior portals to the urinary bladder, using the following factors: 200 K.V., 15 M, 50 cm. distance, Thoreus filter, half value layer, 2.10 mm. copper. The growth disappeared rapidly except for several nodules at the base of the penis. Because of considerable localized skin reaction, therapy was stopped for ten days. Then in the next seven days the patient received 1,700 r to the left side of the base of the penis, using the following factors: 200 K.V., 15 Ma, 50 cm. distance, ½ mm. copper plus ½ mm. aluminum, half value layer 1.12 mm. copper. The remaining evidence of tumor gradually disappeared over the next two months until none was present. Cystoscopy at this time showed no abnormality except for the previously noted cystitis cystica without symptoms. Repeated examinations in the succeeding ten months showed no evidence of recurrence. The patient gained back all the weight lost during the hospitalization and x-ray therapy. How long this desirable state of arrest, or possible cure, will last is questionable.

DISCUSSION

Though the upper respiratory tract is the site of predilection for the extramedullary plasma cell tumor, its occurrence in any organ is possible. The plasma cell is accepted generally as a normal constituent of connective tissue originating in tissue lymphocytes, and the presence everywhere in the body of this type of cell makes for the same distribution of its neoplastic prototype. Clinically, however, such tumors appear as localized lesions on mucous membranes and probably have a long noncancerous phase before characteristic malignant spread occurs. Hellwig's studies indicate that histologically there are no differential characteristics in either phase. In the case here reported, the histology of the tissue from the bladder lesion and the later malignant spread were identical. McNamara and Rogers[3] reported a case of a patient with tonsillar tumor in which the histology was identical with that of a cervical mass removed six years later. Characteristically these extramedullary tumors, whether single or multiple, do not show the urinary Bence-Jones protein and other findings typical of the medullary variety.

In the case reported here the author feels sure the lesion was present at the time of the first cystoscopy, but probably it was very small. It could not have been missed if it had been even a quarter of the size seen later. Its very rapid growth postoperatively supports the contention that between the two cystoscopies the lesion went from a non-malignant to a malignant phase. The possibility of cure in extramedullary plasma cell tumors remains as long as the growth does not extend to bony structures or lymph nodes and if local recurrence remains sensitive to radiation.

The lesson in this singular case is that radiation, to which this neoplasm is extremely sensitive, should be used immediately after the diagnosis of plasma cell tumor is made. Biopsy before operation will permit preoperative or postoperative radiation and probably prevent local recurrence. In this, plasma cell tumors are unlike the common carcinomatous bladder tumors which are relatively insensitive to x-ray.

Addendum: It is now 18 months since the original operation and the patient is apparently cured.

SUMMARY

A case of extramedullary plasmacytoma of the bladder with local metastasis is reported. The literature is briefly touched upon and discussed.

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Facial Characteristics of an Infant Without Renal Function

J. D. KIRSHBAUM, M.D., *San Bernardino*

IN 1946 Potter[1] called attention to the facial characteristics of infants with bilateral renal agenesis. This facial expression had not been observed in association with death from any other cause. Potter stated that "Infants with extreme renal hypoplasia or polycystic changes in the kidneys, and who die because of renal insufficiency, may have similar facies and may have some resemblance to infants with complete renal agenesis, but the appearance is never as typical, and the presence of a kidney anomaly cannot be foretold with certainty."

The typical facies as described by Potter have shown the following features: a receding of the chin, large, low-set ears (with little cartilage), an increase of the width between the eyes and an unusually prominent fold arising at the inner canthus of each eye. The fold sweeps downward and laterally to form a wide semicircle under the inferior medial aspect of each orbital space. There is a flattening and slight broadening of the nose. These features give the face of the infant a resemblance to that of a person of very advanced age.

In the case reported in following paragraphs there was agenesis of the right kidney and complete atrophy of the left kidney, with cyst formation. The facial features were so typical of the cases reported by Potter that a diagnosis of agenesis of the kidneys was made by the author before the autopsy was performed.

From the Department of Pathology, Kern General Hospital, Bakersfield.